

CCD MEMORY SYSTEM

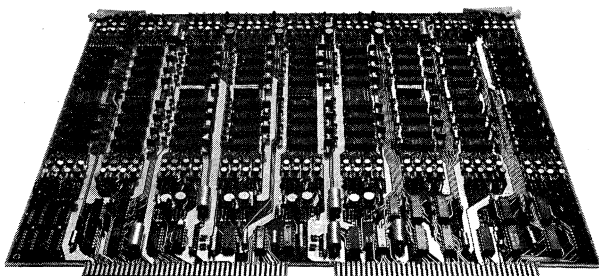
The in-65 is a very economical CCD memory system designed around the Intel 2416. This product is best described and utilized as a Block-Oriented Random Access Memory. The system can be used to randomly address blocks of data and then transfer data sequentially within the data block at a very high data rate.

The system consists of three board types: The memory unit (MU-65), the control unit (CU-65), and the buffer unit (BU-65). The memory unit has a maximum capacity of 1,179,648 bits and is

configured as 128K x 8 or 128K x 9 bits. The 9th bit can be either a data or parity bit. The CU-65 provides all interface, timing and control logic for up to 8 MU-65's. The BU-65 is synchronized to the CU-65 and provides for word length expansion.

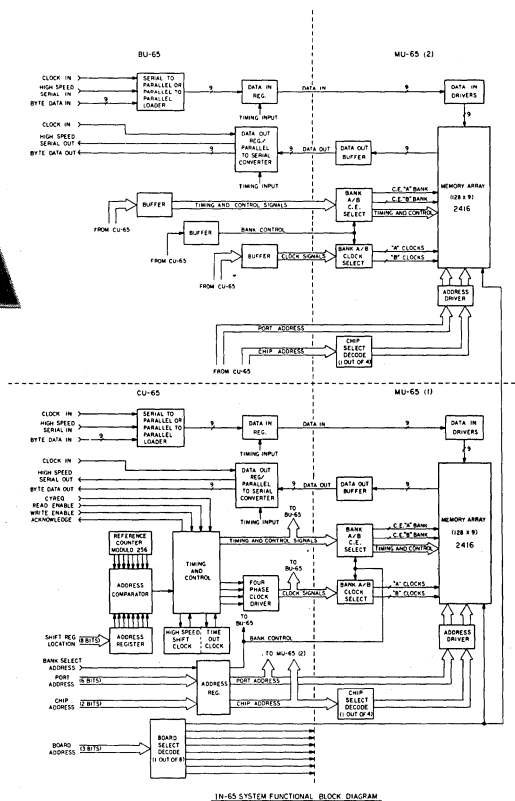
The large capacity, high performance characteristics and economy of the in-65 make it ideally suited for disc and drum replacement, magnetic tape loop replacement and large CRT refresh applications.

MEMORY
SYSTEMS



in-65 FEATURES:

- Low Cost
- Short Latency Time (125 μ sec. ave.)
- High Data Rate (550 nano sec. per word)
- Randomly Accessible Data Blocks
- High Reliability
- High Density
- Simple Asynchronous Interface
- Fully Buffered
- Modular Expandability
- Module Interchangeability
- Options:
 - Byte Parity
 - Address Monitor Outputs



SPECIFICATIONS

Capacity:

Basic MU-65 capacity is 131,072 words. The system is expandable in cards to 1,048,576 words while using only one CU-65.

Word Length:

Basic word length is 8 or 9 bits, and is expandable in multiples of 8 or 9 bits by addition of BU-65's to a maximum of 72 bits.

Shift Rate:

825 ns when seeking new random address
10 μ sec when in standby for data retention

Data Transfer Rate:

10 μ sec to 550 nsec (per 9 bit byte or word)
16.4 megahertz (serial transfer) for one MU-65

Dimensions:

All cards (MU-65,	15.0 inches high
CU-65, BU-65)	12.0 inches deep
	0.625 Inches—
	Mounting Centers

Operational Modes:

Read (NDRO)	Serial bits, paralleled bytes or words
Write	Serial bits, paralleled bytes or words

Interface Characteristics:

TTL Compatible, Asynchronous

D.C. Power Requirements:

MU-65 (max)		Operating (max shift rate)	Standby or min. shift rate
+ 17V DC	$\pm 5\%$	at 2.8 amps	0.4 amps
+ 12V DC	$\pm 5\%$	at 2.8 amps	0.4 amps
- 5V DC	$\pm 5\%$	at 2.8 amps	0.4 amps
+ 5V DC	$\pm 5\%$	at 0.75 amps	0.75 amps

CU-65 (max)

+ 5V DC	$\pm 5\%$	at 5.0 amps
- 5V DC	$\pm 5\%$	at 0.4 amps

BU-65 (max)

+ 5V DC	$\pm 5\%$	at 3.0 amps
- 5V DC	$\pm 5\%$	at 0.3 amps

Environment:

Temperature:	0°C to +50°C operating ambient -40°C to +125°C non-operating
Relative Humidity:	Up to 90% with no condensation 0 to 10,000 feet operating Up to 50,000 feet non-operating

Special Options:

Intel offers a broad line of accessories designed specifically for use with the in-65. This includes backplanes, custom interface card, chassis, power supplies and cooling units. These units are available for 19" and 24" standard racks.